

AR47

*L*ayrock  
*M*ines  
L I M I T E D

ANNUAL REPORT 1968







## Highlights and Summary of Operations

| FINANCIAL  | 1968        | 1967        |
|--|-------------|-------------|
| Sales — Metals and Petroleum .....                       | \$1,826,118 | \$1,105,546 |
| Operating Profit — Metals and Petroleum .....            | 891,683     | 630,167     |
| Investment Income .....                                  | 124,615     | 165,147     |
| Net Profit .....   | 405,447     | 446,225     |
| Cash Flow .....  | 588,835     | 583,771     |
| Working Capital .....                                    | 968,763     | 752,504     |
| Investments — Listed Stocks Market Value .....           | 2,572,919   | 1,946,100   |
| Unlisted Stocks Book Value .....                         | 294,413     | 258,893     |
| Investment in Mining and Oil Properties, less Write-offs | 1,266,186   | 1,506,531   |

### MINING

**COPPER** — A 21.4% net interest is held in the Icon Sullivan Joint Venture, now in its second year of operations. Net income from 17 months of production is already twice the capital invested in the venture.

**GOLD** — A 33% controlling interest is held in Discovery Mines Limited, now entering its 20th year of production. Discovery also has interests in several gold prospects that are potential economic propositions in the event of a significant gold price increase.

### PETROLEUM

The Company is operator of two oil fields in Southwestern Ontario. Since first acquiring interests in Ontario in 1962, the Petroleum Division has recorded a satisfactory performance.

### EXPLORATION

About \$300,000 was spent on mining and petroleum exploration in 1968. As a member of several exploration syndicates, Rayrock can report encouraging results from a joint venture working in the Coppermine River region of the Northwest Territories.

# RAYROCK MINES LIMITED

|   |  |
|---|--|
| <b>OFFICERS</b>                           | J. C. BYRNE - - - - - <i>President</i>   |
|   | J. J. BYRNE - - - - - <i>Vice-President</i>  |
|   | D. S. HAMILTON - - - - - <i>Secretary-Treasurer</i>                                      |
| <b>DIRECTORS</b>                          | J. C. BYRNE - - - - - Toronto, Ont.  |
|   | J. J. BYRNE - - - - - Toronto, Ont.  |
|   | D. S. HAMILTON - - - - - Toronto, Ont.   |
|   | J. J. RANKIN - - - - - Toronto, Ont.   |
|   | H. BRODIE HICKS, P.Eng. - - - - - Toronto, Ont.  |
| <b>MANAGEMENT</b>                         | J. C. BYRNE<br><i>Managing Director</i> - - - - - Toronto, Ont.                          |
|   | A. E. MAC KAY, P.Eng<br><i>General Manager</i> - - - - - Clarkson, Ont.                  |
| <b>CONSULTING<br/>ENGINEER</b>            | NORMAN W. BYRNE, P.Eng. - - - - - Yellowknife, N.W.T.                                    |
| <b>EXECUTIVE<br/>ENGINEER</b>             | L. A. BEDNARZ, P.Eng. - - - - - Toronto, Ont.  |
| <b>SOLICITORS</b>                         | MUNGOVAN & MUNGOVAN - - - - - 80 King St. W.,<br>Toronto, Ont.                           |
| <b>AUDITORS</b>                           | COLLINS, LOVE, EDDIS,<br>VALIQUETTE & Co. - - - - - 110 Yonge St.,<br>Toronto, Ont.      |
| <b>TRANSFER AGENTS<br/>AND REGISTRARS</b> | CROWN TRUST COMPANY - - - - - 302 Bay St.,<br>Toronto, Ont.                              |
| <b>BANKERS</b>                            | ROYAL BANK OF CANADA, Bay and Temperance Branch,<br>Toronto, Ont.                        |
| <b>EXECUTIVE OFFICE</b>                   | Suite 1011, 2200 Yonge St., Toronto 12, Ont.   |
| <b>ANNUAL MEETING</b>                     | December 30, 1968, 10:00 a.m., New Brunswick Room,<br>Mezzanine Floor, Royal York Hotel. |



## Directors' Report

### TO THE SHAREHOLDERS:

The Annual Report for the fiscal year ended October 31, 1968 is presented herewith for your consideration.

Operating profit from metals and petroleum production increased from \$630,167 in 1967 to \$891,683 in 1968. The increase of 41 per cent reflects a full year's production from the Icon Sullivan Joint Venture as compared to only five months in the 1967 fiscal period.

Cash flow of \$588,835 and net profit of \$405,447 show only modest change from that of the previous year due primarily to a very substantial increase in exploration expenditures, both in mining and in petroleum, from \$70,587 to \$293,243.

A satisfactory performance was recorded by the Icon Sullivan Joint Venture in which Rayrock holds a 21.4 per cent net interest. During the year a second open pit zone and the underground orebody were brought into production. Copper ore from these two sources was augmented by mill feed from the original open pit which attained production status in June, 1967. In the 17 months to October 31, 1968, a total of 277,000 tons of ore averaging 3.2 per cent copper was milled. Ore reserves will support mining for another 4.5 years, and it is likely that additional ore will be developed.

The Petroleum Division had anticipated increased revenue and profits for the sixth consecutive year, but unfortunately attainment of these objectives was adversely affected for a period of three months as a result of a reduction in crude oil deliveries to a Sarnia refinery that was incurring difficulties in a newly installed refining unit. To restore the Rodney Field to full production, a new marketing arrangement for a part of the crude was subsequently concluded with a second refining company. Rayrock participated in two exploration ventures in Alberta, but no petroleum discoveries were realized.

The Company is a financial sponsor, with a 25 per cent participation, in Bernack Coppermine Exploration Limited which Company made an intriguing copper discovery in the Coppermine River district of the Northwest Territories. Preliminary exploration results are most encouraging. Rayrock is a member of several exploration syndicates, notably the Icon Syndicate, Newarex Syndicate and the Hanbury Syndicate. In addition to participating in joint ventures, the Company examined several prospects during the year and will continue to support an aggressive exploration policy.

A substantial interest is held in Jorex Limited which was incorporated to undertake a long range program of exploration in Canada and in the United States. Jorex has the financial backing of three prominent mining companies in addition to Rayrock.



## RAYROCK MINES LIMITED

At the forthcoming Annual Meeting, which will be combined with a Special General Meeting, the Shareholders will be requested to ratify a resolution increasing the Board of Directors from five to seven in order to accommodate representation by Empire Films Limited, a Toronto based private company. In October, Discovery Mines, an associated company, sold 730,000 shares of Rayrock at \$2.20 per share to Empire Films. Discovery continues to be the largest single shareholder of Rayrock, owning as an investment 1,000,000 shares or 22.4 per cent of the issued capital. Purchase of the shares by Empire Films is an investment and Discovery Mines will have first refusal to repurchase if Empire Films should decide to sell the shares at some future date.

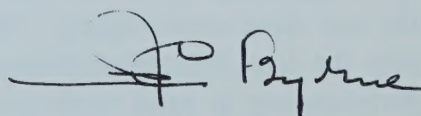
Rayrock and Discovery have each entered into an agreement with J. K. B. Booth, a consulting geologist. As well as his duties as a consultant, Mr. Booth will be vice-president of both mining companies. Mr. Booth, until recently, was Managing Director of Canadian Superior Exploration Limited.

The Shareholders will also be asked to approve the actions of the Directors in granting incentive stock options to Senior Officers and Technical Consultants in the amount of 120,000 shares exercisable over a five year period. Most of the men have been with the Company for many years. Full details are set forth in the informational circular enclosed with this report.

In order to provide for the incentive stock options and as a reserve for other possible corporate purposes, it will be necessary to increase the capital. Accordingly, you will be asked to approve a special resolution increasing the capital from 4,500,000 shares to 5,000,000 shares each with a par value of \$1.00.

Mr. J. J. Byrne, Vice-President and Director of the Company since April 1949, will not stand for nomination to the Board at the forthcoming Annual Meeting. Mr. Byrne will be 84 years of age on his next birthday and plans to retire soon. Many of the accomplishments and projects of past years were initiated in concert with "J.J." as he is affectionately known. The Directors are proud to have been associated with him over the years and convey herewith their very best wishes.

On behalf of the Board of Directors,

A handwritten signature in dark ink, appearing to read "J. J. Byrne", with a horizontal line extending to the left.

President and Managing Director.

Toronto, Ontario  
November 29, 1968

## Consolidated Statement of Operations

For the Year Ended October 31, 1968

|   | 1968               | 1967               |
|---|--------------------|--------------------|
| Crude oil and gas sales .....   | 558,371            | 571,534            |
| Metal sales .....   | 1,267,747          | 534,012            |
|   | <u>\$1,826,118</u> | <u>\$1,105,546</u> |
| Operating profit from petroleum operations .....  | 318,451            | 360,433            |
| Operating profit from mining operations .....   | 573,232            | 269,734            |
| Investment income — including profits from sales of investments<br>\$41,401 (1968); \$24,179 (1967) ..... | 124,615            | 165,147            |
|   | <u>1,016,298</u>   | <u>795,314</u>     |
| Less: Administrative and general expenses .....   | 88,774             | 66,457             |
| Operating profit before exploration and write-offs .....  | <u>927,524</u>     | <u>728,857</u>     |
| Exploration and development — oil properties .....  | 80,972             | 6,034              |
| Pre-production expenditures at mining property in O'Sullivan Township, Quebec<br>(1967) .....             |                    | 57,828             |
| Exploration — mining properties .....   | 212,271            | 64,553             |
| Amortization of oil leases .....  | 79,655             | 81,157             |
| Depreciation — oil well equipment .....   | 18,579             | 26,445             |
| Depreciation — mining equipment .....   | 69,277             | 25,269             |
| Oil leases abandoned .....  | 11,500             | 1,237              |
| Mining claims and options abandoned .....   | 4,377              | 3,438              |
|   | <u>476,631</u>     | <u>265,961</u>     |
| Net profit before provision for mining tax .....  | 450,893            | 462,896            |
| Provision for mining tax .....  | 45,446             | 16,671             |
| Net profit for the year .....   | <u>\$ 405,447</u>  | <u>\$ 446,225</u>  |



# RAYROCK MINES LIMITED

## Consolidated Balance Sheet

### ASSETS

| Current  | 1968               | 1967               |
|--|--------------------|--------------------|
| Cash .....   | 15,717             | 227,967            |
| Short-term notes and certificates, at cost .....   | 500,000            | 500,000            |
| Other short-term investments, at lower of cost or market .....   | 28,524             |                    |
| Accounts receivable .....  | 113,640            | 73,659             |
| Prepaid expenses .....   | 2,218              | 1,790              |
| Interest in net current assets of the Icon Sullivan Joint Venture .....  | 348,489            | 211,080            |
|  | <u>1,008,588</u>   | <u>1,014,496</u>   |
| Investment in other companies (Note 2) .....   | 2,546,523          | 2,365,698          |
| <b>Oil Properties</b>  |                    |                    |
| Petroleum and natural gas leases, at cost less accumulated depletion<br>(1968 \$256,333; 1967 \$176,678) ..... | 879,687            | 959,341            |
| Non-producing leases, at cost .....  | 94,441             | 25,014             |
| Well equipment, at cost less accumulated depreciation<br>(1968 \$96,275; 1967 \$77,696) .....                  | 52,323             | 71,347             |
|  | <u>1,026,451</u>   | <u>1,055,702</u>   |
| <b>Mining Properties</b>   |                    |                    |
| Mining claims and options, at cost .....   | 30,002             | 250,828            |
| Interest in non-current assets of the Icon Sullivan Joint Venture .....  | 198,056            | 188,886            |
| Interest in unexpended funds of mining exploration syndicates .....  | 11,677             | 11,115             |
|  | <u>239,735</u>     | <u>450,829</u>     |
| <b>Other Assets</b>  |                    |                    |
| Sundry accounts receivable .....   | 10,445             | 18,173             |
| Head office furniture, at cost less accumulated depreciation<br>(1968 \$6,131; 1967 \$4,819) .....             | 5,249              | 6,561              |
| Incorporation and organization .....   | 10,667             | 10,667             |
|  | <u>26,361</u>      | <u>35,401</u>      |
| Excess of cost of investment in subsidiary company over the book value of its assets                           | 291,821            | 291,821            |
|  | <u>\$5,139,479</u> | <u>\$5,213,947</u> |

### AUDITORS' REPORT

To the Shareholders, Rayrock Mines Limited.

We have examined the consolidated balance sheet of Rayrock Mines Limited and its subsidiary company as at October 31, 1968 and the consolidated statements of earned surplus, operations and source and application of funds for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

Toronto, Canada,  
November 26, 1968.



# RAYROCK MINES LIMITED

as at October 31, 1968

## LIABILITIES

### Current

|  | 1968          | 1967           |
|--|---------------|----------------|
| Bank loan and overdraft .....              | 17,000        | 220,136        |
| Accounts payable and accrued charges ..... | 22,825        | 41,856         |
|  | <u>39,825</u> | <u>261,992</u> |

### Capital and Surplus

#### Capital Stock

##### Authorized:

4,500,000 shares of \$1.00 par value ..... \$4,500,000

##### Issued and fully paid:

4,460,000 shares ..... 4,460,000 4,460,000

Contributed surplus ..... 619,318 619,318

Surplus or deficit ( ) from operations ..... 20,336 (127,363)

5,099,654 4,951,955

The accompanying notes are an integral part of these financial statements.

Approved on behalf of the Board,

J. C. BYRNE, Director.

J. J. BYRNE, Director.

\$5,139,479 \$5,213,947

In our opinion, these financial statements present fairly the financial position of the companies as at October 31, 1968 and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

COLLINS, LOVE, EDDIS, VALIQUETTE & CO.,

Chartered Accountants.

# RAYROCK MINES LIMITED

## Consolidated Statement of Source and Application of Funds

For the Year Ended October 31, 1968

### Source of Funds

|   | 1968           | 1967           |
|---|----------------|----------------|
| Net profit for the year   | 405,447        | 446,225        |
| Amortization of oil leases  | 79,655         | 81,157         |
| Depreciation of equipment   | 87,856         | 51,714         |
| Other charges included in statement of operations but not requiring a disbursement of funds during year | 17,187         | 6,315          |
| Sale of oil well equipment  | 445            |                |
| Decrease in sundry accounts receivable  | 7,728          | 266            |
| Decrease in unexpended funds of mining exploration syndicates   |                | 2,208          |
|   | <u>598,318</u> | <u>587,885</u> |

### Application of Funds

|  |                |                |
|--|----------------|----------------|
| Purchase of shares of other companies  | 180,825        | 32,597         |
| Acquisition of oil leases  | 80,926         | 330,525        |
| Acquisition of mining claims   | 3,750          | 5,627          |
| Share of cost of non-current assets of the Icon Sullivan Joint Venture                                   | 78,447         | 214,155        |
| Settlement of claim of royalty-holders with regard to Marian Lake mining property, Northwest Territories | 37,549         |                |
| Increase in unexpended funds of mining exploration syndicate   | 562            |                |
| Purchase of oil well equipment   |                | 25,244         |
| Purchase of head office furniture  |                | 2,620          |
| Payment of special refundable tax  |                | 1,503          |
|  | <u>382,059</u> | <u>612,271</u> |

|   |                   |                   |
|---|-------------------|-------------------|
| Increase or decrease ( ) in working capital | 216,259           | (24,386)          |
| Working capital at beginning of year        | 752,504           | 776,890           |
| Working capital at end of year              | <u>\$ 968,763</u> | <u>\$ 752,504</u> |

## Consolidated Statement of Earned Surplus

For the Year Ended October 31, 1968

|  |                  |                     |
|--|------------------|---------------------|
| Deficit at beginning of year   | 127,363          | 337,085             |
| Deduct:  |                  |                     |
| Net profit for the year  | 405,447          | 446,225             |
| Profit on sales of investments in 1966 and prior years   |                  | 313,497             |
|  | <u>405,447</u>   | <u>759,722</u>      |
| Add:   |                  |                     |
| Inactive mining property at Marian Lake, Northwest Territories returned to royalty-holders together with cash settlement of \$37,549 | 142,749          |                     |
| Other mining claims at Marian Lake, Northwest Territories written down to nominal value  | 114,999          |                     |
| Provision for possible loss on realization of investments  |                  | 550,000             |
|  | <u>257,748</u>   | <u>550,000</u>      |
| Surplus or deficit ( ) at end of year  | <u>\$ 20,336</u> | <u>\$ (127,363)</u> |



# RAYROCK MINES LIMITED

## Notes to Consolidated Financial Statements

As at October 31, 1968

1. Included in this consolidation are the accounts of Elgin Petroleum Corporation Limited, a wholly-owned subsidiary company.
2. Investment in other companies:

|  | October 31, 1968 |                    | October 31,        |
|--|------------------|--------------------|--------------------|
|  | Number           |                    | 1967               |
|  | of Shares        | Cost               | Cost               |
| Discovery Mines Limited .....  | 905,972          | 1,545,937          | 1,691,985          |
| Kerr Addison Mines Ltd. ....   | 10,000           | 100,766            | 68,741             |
| Jorex Limited .....  | 100,000          | 100,000            |                    |
| Opemiska Copper Mines Ltd. ....  | 9,000            | 95,965             | 95,965             |
| Radiore Uranium Mines Ltd. ....  | 175,000          | 82,045             | 85,842             |
| Western Deep Levels .....  | 4,000            | 58,852             |                    |
| Camflo Mines Ltd. ....   | 9,000            | 50,771             |                    |
| Pamour Porcupine Mines Ltd. ....   | 20,000           | 46,412             | 21,586             |
| Mogul Mines Ltd. ....  | 44,000           | 38,092             | 44,152             |
| Industrial Acceptance Corp. Ltd. ....  | 1,000            | 26,302             |                    |
| Dome Mines Ltd. ....   | 400              | 23,607             | 18,670             |
| Trans-Canada Pipe Lines, pfd. ....   | 500              | 22,719             | 22,719             |
| Bow Valley Industries Ltd., pfd. ....  | 1,000            | 15,650             | 15,650             |
| Fort Reliance Minerals Ltd. ....   | 42,850           | 14,997             |                    |
| Aunor Gold Mines Ltd. ....   | 4,000            | 14,037             |                    |
| Great Northern Gas — 6% pfd. ....  |                  |                    | 24,500             |
| Other listed shares .....  |                  | 15,958             | 16,995             |
|  |                  | 2,252,110          | 2,106,805          |
| Other shares (unlisted or escrowed), debentures, etc. at cost less allowance for possible loss on realization of \$550,000 ..... |                  | 294,413            | 258,893            |
|  |                  | <u>\$2,546,523</u> | <u>\$2,365,698</u> |
| Quoted market value of listed shares   |                  |                    |                    |
| October 31, 1968   | \$2,572,919      |                    |                    |
| October 31, 1967   | \$1,946,100      |                    |                    |

3. It is estimated that there is no liability for income taxes for the year ended October 31, 1968 because of deductions and exemptions claimed for income tax purposes.
4. The total remuneration paid to directors and senior officers (as defined by The Corporations Act, Ontario) for the year ended October 31, 1968 was as follows:

|  |                  |
|--|------------------|
| Directors and senior officers .....                | 38,498           |
| Senior employees (not officers or directors) ..... | 15,180           |
|  | <u>\$ 53,678</u> |
5. On October 31, 1968 the directors passed the following resolutions, both of which are subject to approval by the shareholders:
  - (a) a resolution to apply for Supplementary Letters Patent increasing the authorized capital of the company from 4,500,000 to 5,000,000 shares; and
  - (b) a resolution granting incentive stock purchase options on a total of 120,000 shares of capital stock to key employees, at a price of \$1.35 per share, exercisable as to 40% at the end of the first year, as to 30% at the end of the second year and as to 30% at the end of the third year. The said options are to be cumulative and exercisable at any time to the end of the fifth year.

# RAYROCK MINES LIMITED

## PETROLEUM DIVISION

### RODNEY FIELD

The Rodney oil field continued to be the largest revenue producer for the Petroleum Division. Net oil sales from our producing interests were 164,020 barrels or an average of 450 barrels of oil per day compared with an average of 459 barrels of oil per day in fiscal 1967. Anticipated continuing increase in production and profits for a sixth consecutive year were not realized due to an unexpected forced reduction in crude oil deliveries to a Sarnia refinery.

In April crude oil sales to the Imperial Oil Refinery, Sarnia, from the Rodney field were reduced by more than 60 per cent. This reduction was caused by start-up problems in Imperial's newly installed refining unit and from a reported corrosion problem due to a relatively high mercaptan content in the Rodney crude.

Following negotiations with other refiners in the area, an agreement was made with BP Canada Limited for the sale to them of a portion of the Rodney production. A pumping facility was constructed at the Interprovincial Pipelines station in Sarnia and the oil is delivered to BP's refinery in Bronte, Ontario. The Rodney field resumed full production on August 14th. The present arrangement of delivering Rodney crude to two refineries should assure continuing optimum production and sales.

As a result of the restricted sales at a point in its history when production was still in the incremental stage, it is estimated that the loss of net oil sales was approximately 25,000 barrels with a value in excess of \$78,000. This figure corresponds to the increase the Petroleum Division had anticipated for the current fiscal year.

### GOBLES FIELD

Your Company, acting as operator of the Gobles field, was successful in obtaining a permit to unitize the field for the purpose of secondary recovery of oil by water injection. The effective date of the unit was November 1, 1968 and the waterflood operation started on November 16th. Recoverable oil reserves from secondary recovery operations are estimated to be 3.2 million barrels.

Oil sales from the Gobles field for the fiscal year were 81,145 barrels or 222 barrels per day compared with 216 barrels per day the previous year. Gas sales were 29.6 million cubic feet. Rayrock holds a ten per cent interest in the Gobles field.

### GENERAL

Total oil production operated by your Company in fiscal 1968 was 283,282 barrels or an average of 774 barrels per day. Rayrock's net interest was 172,135 barrels or an average of 470 barrels per day. Operating profit from the Petroleum Division was \$318,451 compared with \$360,433 in fiscal 1967.

Rayrock also has a small interest in eight producing wells in the Redwater Oil Field near Edmonton, Alberta and in a producing oil well in the Zama field of Northwestern Alberta, together with overriding royalties from oil production in the Rodney and Gobles fields.

We participated in two reef plays in the Rainbow Zama area. Full pinnacle reefs were found in each case but they were water-bearing.



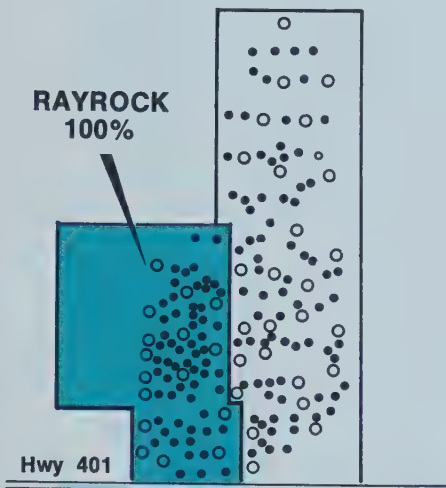
# OIL PRODUCING INTERESTS OF RAYROCK MINES

## SOUTH-WESTERN ONTARIO



### RODNEY FIELD

RAYROCK  
100%



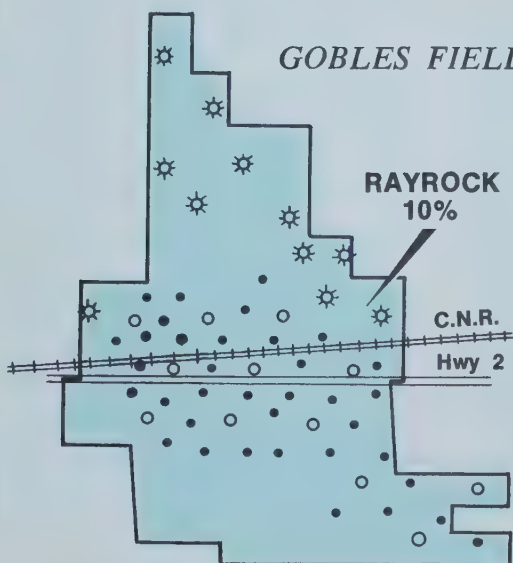
Hwy 401

RAYROCK 40%



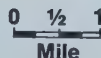
### GOBLES FIELD

RAYROCK  
10%



C.N.R.

Hwy 2



## LEGEND



Rayrock



Rayrock —  
Alcon Petroleum



• Oil Well

☆ Gas Well

○ Water Injection Well

## MINING DIVISION

### A. PRODUCTION

#### ICON SULLIVAN JOINT VENTURE

A satisfactory operating performance was recorded by the Icon Sullivan Joint Venture for the fiscal year ended October 31, 1968. A total of 194,705 dry tons of ore averaging 3.3 per cent copper was milled for a copper output in concentrate of 12,230,000 pounds. Mill recoveries averaged 96 per cent while the grade of the copper concentrate produced has been in the order of 26 per cent. From the commencement of operations in June, 1967 to the end of October, 1967 the mill treated 82,292 dry tons averaging 3.1 per cent copper.

The ore is trucked a distance of 44 miles to the Merrill Island concentrator which has a rated capacity of 650 tons per day. Merrill Island receives a toll charge of 50 cents per ton and also qualifies for 10 per cent of the Icon Sullivan Joint Venture operating profit.

During the past fiscal year, mill feed was drawn from three of the four known ore zones. The No. 1 Open Pit was the original source of ore until supplemented early in 1968 by broken reserves from the adjacent Underground Zone. Adit collar development commenced in January and the tonnage contribution of underground ore to the mill attained a level in excess of 50 per cent two months thereafter. During the early stages of subsurface development the grade of recovered ore was relatively low as it was necessary to advance openings through areas of marginal reserves. Actual stoping began in June, and by the latter part of the summer sufficient progress had been made whereby satisfactory grade control was achieved and an improved tenor of underground ore had been realized.

Except for a modest tonnage of remnant mineralization, reserves in the No. 1 Open Pit had been depleted at the end of October. Production of high grade ore from Open Pit No. 3 was initiated in July.

Trackless mine equipment is being employed in the mining of the shallow underground ore zone. Broken rock is moved by two versatile, rubber-tired load-haul-dump vehicles known as Scooptrams, while transportation of the ore from underground to the surface orebins is carried out by diesel trucks. The modified room-and-pillar mining method lends itself to favourable mining costs.

Ore reserve estimates as at October 31, 1968 are presented as follows:

|                     |              |             |
|---------------------|--------------|-------------|
| Underground . . .   | 615,000 tons | 2.2% Copper |
| No. 2 Zone . . .    | 125,000 tons | 1.6% Copper |
| No. 3 Zone . . .    | 140,000 tons | 7.0% Copper |
| Stockpile, etc. . . | 30,000 tons  | 3.0% Copper |
| Total . . . . .     | 905,000 tons | 2.9% Copper |

At the established production rate of 200,000 tons per year, these reserves are equivalent to a further 4.5 years of operations. Earlier exploratory drilling on the mine property realized encouragement and thus there appears to be a good chance that additional ore will be located.

Rayrock's net interest in the Icon Sullivan Joint Venture is 21.4 per cent and participation is shared equally with each of three other companies — Gunnar Mining, Kerr Addison Mines and Newmont Mining Corporation of Canada. Management of the project lies with Mr. J. N. Botsford of Gunnar.

Two noteworthy accomplishments may be recorded by the Icon Sullivan Joint Venture. Pro-



duction was attained only a few short months after development work had been initiated, while the capital investment of the four financial sponsors was recovered after six months of operations.

### B. EXPLORATION

#### ICON SYNDICATE

During 1968, exploration activities of the Icon Syndicate continued to be focussed on the Chibougamau region of Quebec. Airborne geophysical surveys, diamond drilling and prospecting were carried out in an area west of Chibougamau. To the east of the town a copper showing with appreciable precious metal content was discovered late in the season, and preliminary examination has commenced. On the Icon Syndicate ground north of the Icon Sullivan copper mine two magnetic anomalies were drill tested, but nothing of economic importance was realized. A proposed scintillometer survey for a 60 claim uranium prospect located northeast of Lake Mistassini has been deferred.

Rayrock has been associated with the Icon Syndicate since its inception in 1960. Participation in this venture is shared equally with Kerr Addison Mines, Gunnar Mining and Newmont Mining Corporation of Canada. The Manager of the Syndicate is A. J. Troop, P.Eng.

#### BERNACK COPPERMINE EXPLORATION LIMITED

During the past summer a significant copper discovery was made in the Coppermine River region of the Northwest Territories by Bernack Coppermine Exploration Limited. The financial sponsors of Bernack, a private company, are Rayrock, Frobex, Conwest and Consolidated Canadian Faraday, each with a 25 per cent participation.

The find, known as the June showing, was evidenced by abundant mineralized frost heave material associated with a prominent north-south

trending linear or fault structure. Geophysical surveys were undertaken to define a drill target, and diamond drilling commenced in mid-August. Results of limited drilling have indicated a steeply dipping and erratically mineralized fault zone, with the copper values occurring in a fractured and brecciated basalt — a volcanic rock type. The sulphide mineralization is predominantly chalcocite with minor bornite and chalcopyrite, and thus one would expect that a high grade concentrate could be produced. Excellent widths of good grade copper have been intersected in the drill program, which has thus far outlined a potential ore zone for a strike length of 500 feet and to a vertical depth of 300 feet. The deposit has not been delimited either laterally or down dip. Twelve inclined holes, constituting 3,230 feet of drilling, were completed to September 30th at which time the exploration program was suspended for the winter.

Interesting copper showings have been encountered at points some 10,000 feet and 15,000 feet south of the June find. These mineral occurrences are located in the northern part of a 719 claim property wholly owned by Bernack. Reflecting a somewhat similar geological and structural environment to the discovery ground, bornite and chalcocite bearing frost heave and rubble have been found in close proximity to fault zones. Although the aforementioned areas have been only partially covered by geophysical surveys, at least two attractive drill targets have been indicated. The geophysical surveys employed were magnetometer, electromagnetic, and induced polarization.

Bernack has acquired by staking and option over 1,000 claims in the Coppermine area. Exploration on each of three properties optioned by Bernack did not disclose values of economic importance. Field work on the wholly owned claims will resume about next May.

# RAYROCK MINES LIMITED

## JOREX LIMITED

Jorex Limited was incorporated early in 1968 for the purpose of conducting mineral exploration in Canada and in the United States. Four mining companies and a prominent Canadian investment firm have combined to raise substantial capital for the new exploration concern. Rayrock, McIntyre Porcupine, Conwest Exploration, and British Metal Corporation (Canada) Limited have each purchased 100,000 shares of Jorex at \$1.00 per share, while Greenshields Incorporated has underwritten 500,000 shares at the unit price of \$1.00. Each of the four mining companies has committed itself to the purchase of an additional 100,000 shares at \$1.00 per share when called upon to do so, and not later than June 30, 1971. Jorex, therefore, is launching exploration with \$1.3 million guaranteed to the treasury. The Company plans to operate on an annual budget in the order of \$225,000, while management and direction will be provided by two well known mining personalities, Mr. J. J. Rankin and Mr. R. L. Segsworth.

It is interesting to note that the securities industry and the investment public have commented favourably on the manner in which Jorex has raised its speculative capital. The stock was listed on the Toronto Stock Exchange in September. Authorized share capital of Jorex is 4,000,000 shares and 1,200,007 shares were outstanding as at October 31, 1968.

Since the financial arrangements were formally concluded in September, Jorex has acquired mining claims in a number of regions in Canada, and is participating in a prospecting syndicate that is active in the United States.

## MICRO NICKEL PROJECT

Results of the 1968 exploration program on the optioned Micro base metal property were disappointing. The nickel-copper prospect is

located 250 miles northwest of Whitehorse in the Yukon Territory. Finances for this year's effort were provided by three companies — Rayrock Mines (25%), Discovery Mines (50%), and Pacific Petroleums (25%).

Shareholders may recall that a decision to initiate additional exploration was prompted by the encouraging results realized in 1967. In March of this year, surface drilling was resumed in an endeavour to define the attitude of a major fault zone, and also to assess the strike potential of sulphide bodies west of this fault structure. To the east of the major north-south break a modest tonnage of potential ore had been detailed by previous surface and underground work. Following de-icing and dewatering of the lower underground workings, subsurface drilling commenced in June to evaluate the ore possibilities at depth in the favourable tuff host rock.

Good widths of sulphide mineralization were cut west of the major fault zone and also at depth below the bottom mine level, but nickel and copper values were negligible. Some 4,500 feet of drilling had been completed in the 1968 program when it was suspended in August.

## NEWAREX SYNDICATE

An airborne program for uranium occurrences in eastern parts of Canada was conducted by the Newarex Syndicate whose members are Rayrock, Discovery, Consolidated Canadian Faraday, Canadian Nickel and Frobex. The Syndicate has also initiated exploration on an optioned uranium-gold prospect situated some 100 miles east of Red Lake in Northwestern Ontario; a 75 per cent interest can be earned in this venture. Preliminary prospecting has realized encouragement.

## HANBURY SYNDICATE

Following on the heels of a nickel discovery by Newmont Mining Corporation, a group of 500 claims was staked in the Hanbury River region



## RAYROCK MINES LIMITED

of the Northwest Territories by the Hanbury Syndicate. Situated some 250 miles east of Yellowknife, the area was the scene of an extensive staking rush in the late summer and fall. The Syndicate, whose participants are Rayrock, Conwest, Jorex and Consolidated Canadian Faraday, will undertake a winter program of ground reconnaissance geophysics.

### GENERAL

Through a working option agreement, Rayrock Mines and Hydra Explorations have earned an interest in a silver-lead-antimony property situated in the Bridge River area of British Columbia. Previous exploration of the partially developed prospect established modest tonnage indications in two vein structures. Rayrock and Hydra have been financing metallurgical tests to determine whether a saleable concentrate may be derived from mineral processing. In addition, an underground drill program was recently undertaken to assess the potential of the known veins.

\* \* \*

In association with Discovery Mines, a prospecting party was engaged during the past summer to search for minerals in a region north of Smithers, British Columbia. Interesting show-

ings were discovered, but nothing of economic consequence was realized.

\* \* \*

Rayrock is one of several financial sponsors of Mexicanus Explorations which is pursuing exploration in the southwestern United States. Many prospects were considered and examined during the past year.

\* \* \*

On its own account, Rayrock examined several properties and has some under consideration at the present time.

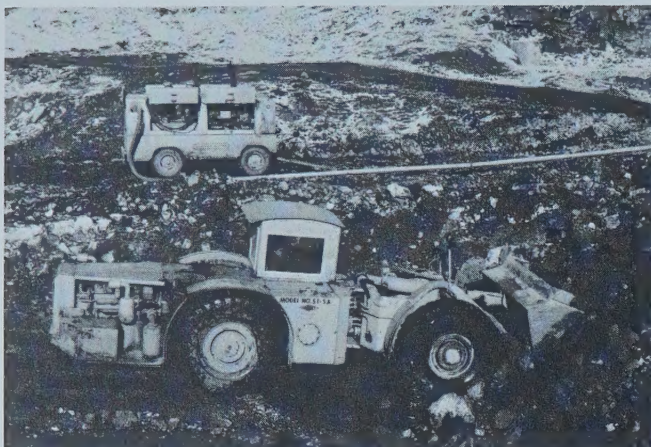
Grubstake participations will continue to play a part in the Company's exploration plans.

\* \* \*

Shareholders are reminded that the Company now has a significant investment in Fort Reliance Minerals Limited as a result of having relinquished its 30 per cent equity in the assets of the Redfort Syndicate for consideration of 128,500 escrowed shares. Under a rights offering in 1968 an additional 42,850 shares were acquired, thus giving a total of 171,350 shares. Fort Reliance has important holdings in Gortdrum Mines and Cumont Mines, and is active in field work.



# RAYROCK MINES LIMITED



Scoop Tram operating in open pit at Icon Sullivan Joint Venture property.



View from No. 1 Open Pit looking towards the adit collar of the Underground Zone. The surface plant and orebins are in the background.



View of Field Office and oil storage tanks at Rodney, Ontario.





